4 Strategies

➔ Purpose

The purpose of this section is to provide participants with information that will lead to the identification and implementation of effective evidence-based strategies.

➔ Outcomes

- Participants will be able to identify evidence-based strategies to address determined objectives.
- Participants will be able to identify appropriate personnel to implement strategy.
- Participants will be able to write a rationale for proposed strategy.
- Participants will be able to develop action steps linked to strategy.
- Participants will be able to develop impact measures for the strategy.

➔ Research-Based Strategies

The DESE has provided a list of research or evidence-based strategies that are allowable for Districts to use when completing improvement plans. It is strongly suggested that Districts use these strategies when writing plans as grant applications. However, many Districts will be submitting plans as a self-study. Whether the improvement plan is a grant application or a self-assessment, if a District has a different strategy it would prefer to implement and can justify the research or evidence base for use with the District's student population, then consideration will be given to approving the strategy. A list of the Approvable Programs or evidence-based practices allowed by DESE in elementary achievement and post-secondary is included in the resources section of this manual.

Identifying Research or Evidence-Based Strategies

As the District team begin to search for strategies to address your District's improvement priorities, they will find that there are many strategies (interventions) proposed as a method for school improvement in any given area. However, it is critical for the success of the improvement plan that the team selects a strategy that

Scoring Guide- Strategies

- ✓ The strategy is allowable and is aligned with the objective.
- ✓ District personnel responsible for supervision of strategy are clearly identified by role and/or name.
- ✓ The rationale describes how the strategy matches District prioritized needs and is linked to identified root causes.
- ✓ The rationale describes the level of staff buy-in for implementation of the strategy.

is appropriate to meet improvement needs, District demographics, and has been field-tested for effectiveness. The last concept is referred to as "research-based" or "scientifically-based" interventions.

What is Scientifically-Based Research?

The IDEA 2004 Regulations, released in August 2006, references the definition of scientifically based research from section 9101 (37) of the Elementary and Secondary Education Act (p. 46576). The definition of scientifically-based research "means research that involves the application of rigorous, systematic, and objective procedures to obtain reliable and valid knowledge relevant to education strategies and programs." The WWC and NCLB employ similar definitions. Under NCLB, educators are expected to consider the results of relevant scientifically based research, whenever such information is available, in making instructional decisions.

Current Limitations on Research-Based Interventions

While best practices would suggest that a research-based intervention should be selected for strategies to meet objectives, in reality strategies that meet this rigorous standard are difficult to find in the current research literature. However, many strategies are available that meet the criteria of being an evidence-based intervention- in other words, an intervention that is based on sound research and has had sufficient research conducted with the intervention to suggest that it would make a significant difference toward achieving the District's objective(s). Therefore, if a research-based intervention that meets the full criteria is not available or feasible, then care should be taken to select an evidence-based intervention that would make an appropriate strategy. Strategies that do not meet the standard of being considered evidence-based will not be approved.

There are many sources of information on research-based strategies or interventions. These include national professional organizations (i.e., National Association of State Directors of Special Education), U.S. Department of Education funded sources (i.e., Reading Rockets, What Works Clearinghouse), and the Missouri Project found on the Missouri Department of Elementary and Secondary Education website under Special Education Effective Practices. Other sources include research databases, such as

Wilson Web or the Educational Research Center (ERIC). Even Google has a research database for educational materials. However, the team must ensure that the research is from a reliable, valid source and not based upon personal opinion papers from persons trying to sell products or services. It would be best to get information from professional peer-reviewed journals or sites.

High Quality Professional Development

No Child Left Behind (NCLB) and the Missouri Department of Elementary and Secondary Education (DESE) both have specific requirements for professional development strategies. These requirements indicate that training should be continuous and be an integral part of the educational program and all school initiatives. In order to ensure that the intervention is understood, follow-up training and consultation services by the coach will be important. The strategy training should be incorporated as part of the District professional development plan developed each year to address the needs of the all staff members.

Rationale for Selection of a Strategies

There are 3 key components to consider regarding various strategies for implementation in your District.

1. Pay Attention to What the Data "Says"— It is critical that the strategies selected are effective with the objectives identified during your date drilldown procedure. For example, if the data indicates that drop-out prevention is an area of critical need, then the strategies under consideration should be focused on the population of students at risk of dropping out.

2. Make a Connection to the Research— Another consideration of any strategy is that it is grounded and based in research. Not every strategy that the team identifies will have a research base, as defined above in the WWC definition. However, any strategy selected should be tested and evaluated in a setting that is as similar as possible to the characteristics of the District population.

3. Multi-faceted Objectives May Require Multiple Strategies— Many of the objectives identified through data analysis may require multiple strategies be implemented over the course of the improvement period in order to see

meaningful improvement. As the team conceptualizes the improvement plan, keep in mind that there may not be a single "magic" strategy that will best address the needs identified for the District. Instead, the improvement plan may contain multiple, complimentary strategies, that address different facets of the objective. However, many of the strategies on the "Approvable" list of programs would address the needs at a broad level and would be comprehensive strategies to choose.

Tools for Selecting Strategies

The *Evidence-Based Strategy Checklist* was designed to facilitate the selection of a strategy by District teams. There are no "right or wrong answers". Each item is simply a key point to keep in mind as the team judges the quality and relevance of possible intervention strategies. However, as the team is asked to explain the choice of strategy in the improvement plan application, this checklist may also be useful in explaining the team's process of selection of strategy. Once the team has identified what is considered to be a research-based or evidence- based strategy, the next question is "Is this strategy appropriate to the school District's identified improvement needs?" Stakeholder teams need to determine whether the intervention being considered is appropriate for their unique context and set of circumstances.

Describing the Strategy Selection Process

As Stated above, if the District chooses to use a strategy that is not on the DESE list of approvable programs and evidence-based practices, the team will be required to provide an evidence-based rationale for selecting the strategy. This discussion should include:

1. A description of the intervention strategy, including as necessary, information about its creators, publishers (if it is published), and a brief overview of what the strategy entails.

2. A summary of the theory and research identified that supports the use of the strategy. This does not need to be a lengthy or in-depth description, it simply

needs to be clear that the team has examined the evidence base to support the use of the intervention strategy.

3. Provide a summary of why the selected strategy was the most appropriate for the specific circumstances that the District is facing. Make sure that the proposed strategy is linked to both prioritized District needs and to the root causes of the area of need.

Developing Action Steps

Scoring Guide- Action Steps

- ✓ The action steps provide a logical sequence from planning to implementation and evaluation of the strategy and are specific enough to ensure effective implementation of the strategy.
- ✓ Implementation fidelity checks are included as an action step.
- ✓ The personnel responsible for implementation are identified as well as projected starting dates.

The next step in developing the plan with the selected strategy is to begin to delineate the "action steps" required to successfully implement it in the school District. In some cases, the strategy will provide basic guidelines for implementation. For example, if the strategy is implementation of Reading First principles, then the Reading First guidelines will help determine what steps are necessary to ensure full program implementation. In other cases the team will have to create your action steps from scratch. Regardless, keep in mind that action steps should be specific, closed-ended, and as detailed as possible. All action steps should include the following information:

Action Step—This is what you actually intend to do. Please don't say "Implement the intervention"- that is far too broad, and quite difficult to measure. Instead, break the intervention into its component parts- identify staff, train staff on intervention, implement in one classroom, implement in a second classroom, gather evaluation data, etc. The team can always combine action steps if they feel they have too many, but it is generally easier to combine them than it is to break them apart.

Brief Description—This includes details beyond the action step itself. For example, if the action step is to train staff on the intervention, the description might include who the trainer is, how many sessions are needed, and which staff are participating in the training.

Projected Start Date/End Date—Providing a detailed timeline at the outset will help to keep the District on track in the implementation of the intervention. Keep in mind time for training, data collection, staff recruitment, and other strategies, as well as the actual implementation of the strategy.

Person/Role Responsible—Who is responsible for the implementation of this particular action step? It may be several people- for example, the project supervisor and several classroom teachers, or the project evaluator and the project supervisor. Be as specific as possible, although in some cases there may not be an individual identified for the role yet, because they need to be hired or trained. In this case, identify the role.

Determining Key Personnel

In conceptualizing the implementation of the selected strategy, it is important to consider who in the District or school building will actually be responsible for the work. Key questions to address:

1. Who will be the person responsible for the supervision of this strategy? Who will be responsible for the implementation of the strategy? (These may be different people, or they may be the same).

2. How much time will each person need to devote to the strategy? Will this time be above and beyond their typical job duties or is it part of what they are already doing? Has enough staff time been allocated to successfully implement the strategy?

3. Who will be supervising implementation? Is the person supervising the implementation of the strategy in the same building as the people implementing the strategy? How will their presence/absence change the implementation of the strategy?

4. What are the special skills and training needed for personnel to implement the strategy? Do the key personnel need additional training or support in order to implement the strategy? How will they get this?

Developing Impact Measures

Scoring Guide- Impact Measures

- ✓ Impact measures allow for a determination of whether the strategy is implemented as intended (i.e., strategy fidelity/ program integrity).
- ✓ Impact measures include objective, quantifiable data, as well as related qualitative data and are sufficiently sensitive to detect small increments of change.

Impact measures are used to evaluate the impact of the strategy on student performance or the overall system. Impact measures help to assess the extent to which the strategy has caused a change in the target population. The question arises, of course, "What is an effective measure of impact?" Some measures are obvious while others might be more subtle. For example, if the intervention is aimed at decreasing dropout rates, measures used might be student attendance, participation or engagement in classes, disciplinary actions, or other measures of student engagement and participation in school. The point is that "impact" is often very hard to demonstrate and often one must resort to using "proxy" measures (indirect measures of strategy progress) to approximate something that is very hard to measure. Here is where it is important to get stakeholder involvement to support the selection of such measures.

Along with selecting the measures, it is important to describe how the team will monitor progress. For example, the team should address such issues as how frequently data will be measured, decide on a start-end date, and find a way of ensuring that the measures will actually be taken—"Who will be responsible?" It is important to stress that the measure ultimately selected be "sensitive" enough to detect changes.

When developing impact measures, measures must be selected to monitor the progress of student learning and also to monitor the fidelity of implementation of the strategy itself. It is important to ensure that the strategy is implemented as planned or it may have little success in increasing student learning.

Measures of student learning are often quantitative in nature (MAP scores, drop-out rates, etc.), or provide numbers that can be graphed and evaluated. However, fidelity of implementation measures are often more qualitative in nature (observations, interviews, focus groups, surveys) and may require personnel from outside the classroom to collect. Both types of measures must be included in the improvement plan.

Quantitative and Qualitative Data Collection

Quantitative Data

The collection of quantitative data Involves numbers of some sort. The most useful for this purpose will be standard scores, such as frequencies, percentages, or percentile ranks. This would include the data compiled by the State from information provided by the Districts (usually provided yearly) and data compiled by the Districts from their own assessments (information collected more frequently, such as rating scales, reading assessments, curriculum-based measurement, Diagnostic Indicators of Basic Early Literacy Skills scores, etc.). The team must have baseline data collected prior to implementation of the strategy and the District must be sure to collect the same data throughout the implementation period, so the data can be compared.

Quantitative data tells whether or not the objective is being met. It allows the team to determine if the strategy being used should be altered .

Qualitative Data

Qualitative data does not usually involve numbers and is usually collected either one-on-one or in small groups. Qualitative data collection methods include questionnaires, interviews, observations, and focus groups. Qualitative data can be converted to quantitative data by assigning the information a number through the use of a coding system. While quantitative data tells if progress is being made with student learning using the strategy, qualitative information tells <u>why</u> student learning is or is not making progress with the strategy. It allows the team to examine the integrity with which the strategy is implemented, pinpoint problem areas in implementation, and determine if revisions should be made without waiting until the end of the year. The use of quantitative and qualitative data together gives a complete picture of the progress of the District towards meeting the objective through the strategy selected and ensuring that the strategy has the maximum intended impact.

How to Think About Impact

If a proposed strategy includes teacher training, the proposal must include measures that evaluate the impact of this training on teachers and students. If a proposed strategy focuses only on students, a measure of the impact on students must be included—not just whether it helps a District meet a targeted objective.

Evaluation strategies focusing on teachers should include measures of what they learned from the training, as well as how they are implementing the strategy. Let's take the example of training relating to the objective of increasing graduation rates. A District might propose training its teachers on how to implement Effective Transition Planning. In this case, measures of *both* what teachers learned during each training (i.e., how much and what do they know about effective transition planning) *and* how effectively these teachers implement the program (i.e., process measures) should be included.

Evaluation strategies focusing on students must assess the direct impact of the strategy on students, not just on whether the associated objective is attained.

Implementation Fidelity

Implementation fidelity is the degree to which planned strategies are implemented as designed. This is critical to ensure that the strategy selected will have the most impact and work as intended. When planning how the strategy will be implemented, the team must build in ways to measure the integrity with which the components are correctly administered. There are several ways to do this:

1) When selecting strategies, choose ones that have a high probability of success and that focus on keystone behaviors- those that are pivotal, or if changed will give the largest "bang for your buck".

2) Choose strategies that are shown through research to be effective

3) Select strategies that are acceptable to the persons implementing the strategy and that are easy to implement, positive, have perceived effectiveness, and match the characteristics of the instructional environment. This is where it is important to involve stakeholders in the selection of strategies to meet the

objectives in order to get feedback on which strategies would be most acceptable and able to be implemented correctly in your system.

When planning the implementation of the strategy, ways to build in elements to enhance fidelity include:

1) Use high-quality professional development and not just one-time only trainings.

2) Assign someone in the District as the “coach” or strategy coordinator to ensure the strategy is implemented correctly and to be available for solving problems that may arise.

3) Have the coach provide guided practice and feedback if needed.

4) Incorporate fidelity checks or strategy monitoring devices that can be utilized at set points. Self-reports from teachers or students can be used, but are not always accurate. Therefore, objective observations are also important. The coach would be an excellent resource to conduct observations.

5) As data is collected during the year about the strategy, build in points at which the data will be analyzed by the coach and stakeholder groups to look at progress toward the objective.

Sensitivity of Measurement

Strategy-impact measures should be sufficiently sensitive to detect increments of change. Highly sensitive measures can detect even small units of change. Selecting sensitive measures will ensure that the team is able to discern the impact of the strategy from other external factors as well as provide information as to whether changes need to be made in the design or management of the intervention strategy. As such, carefully selected strategy impact measures should also provide valuable information regarding whether or not the strategy is being implemented as intended. Such information can be critical in making mid-intervention adjustments. In some cases, it will be very difficult to select measures that signal very small increments of change. This is typically only possible with measures that can be easily collected and with high frequency, such as curriculum-based measures (CBM) to monitor progress of a reading intervention. The main point, however, is to think about and use measures that will be able to provide some information regarding how effective the intervention strategy has been.

Objective and Quantifiable Data

Objective data are those in which someone who does not know anything about the District can look at the data and make an impartial judgement about the effectiveness of an improvement strategy. So, if good objective data were being used, the data can be given to multiple “blind” judges and they would all likely come to the same conclusion. The “flip side” of objective data, of course, are data that are subjective. In this case, multiple judges would likely yield conflicting views about the effectiveness of an improvement strategy. In short, subjective data can lead to opinion and conjecture—effectiveness is simply judged by who is asked. With increased emphasis on outcomes measures (proof that strategies actually worked), it is clear that there will be a growing demand to demonstrate that objective data is available for decision-making.

Reliable and Valid Measures

Data need to be consistent across time in order to be comparable. The team must consider whether the data have “changed” as a result of different collection methods and the criteria used for collecting the data. For example, the team can’t fairly compare “percent of youth with IEPs graduating from high school with a regular diploma compared to percent of all youth” if the LEA included youth with disabilities that earned GEDs and forms of “non-regular diplomas” (special education diplomas, vocational education diplomas, etc.). The notion of “comparability” is behind the idea of reliability—as the saying goes, making sure you are comparing “apples with apples.”

Measures from which data are obtained also need to be valid—that is, does it faithfully measure what it is supposed to measure? For example, consider “percent of parents with a child receiving special education services who report that schools facilitated parent involvement.” How does one know, for example, that the survey used to obtain this information actually measures how parents really feel with regard to how well schools facilitated parent involvement. Maybe the survey was just a measure of “satisfaction,” and actually offers little information about how well schools facilitated parent involvement. Certainly, the two might be related, but still constitute two related, but fundamentally different ideas or "constructs" (i.e., program satisfaction vs. effective parent involvement). Validity is difficult to determine. In truth, sometimes the team will not know how valid a measurement is. But with instruments that have been validated in the field and have received genuine input from stakeholders, in this case, parents, it is well within the reach of Districts to demonstrate that measures are valid.

Determining Timelines for Strategy Implementation

A key component to implementing a successful intervention strategy is establishing realistic timelines. Taking the time to develop a timeline will ensure that the strategy is being conducted in an efficient way. As the District team outlines the strategies that are necessary to meet the objective, it is important to develop a timeline that is thorough. It should include information regarding the initial steps for implementation, data collection strategies necessary to evaluate the impact of the strategy, as well as identification of key personnel responsible for the carrying out the necessary tasks in the timeline.

Issues to Consider When Developing Timelines…

- The timeline provides a logical sequence of steps from planning to implementation and evaluation .

- The timeline includes multiple data collection points with strategy-impact measures collected frequently enough to evaluate short-term and ongoing progress.

- The timeline is realistic given the resources available for implementation.

- The timeline includes required strategy reports to DESE.

More specifically, the timeline needs to include multiple data collection points to ensure that impact data is collected in a timely manner. The data collection points should be frequent enough for the team to evaluate the impact of the strategy and provide guidance about whether mid-strategy changes might be necessary. Some questions to consider when developing the strategy implementation timeline include:

- What steps are needed to complete the strategy?
- How long will each step take?
- Who will be responsible for each step in the timeline?
- What data collection steps need to be built into the timeline to ensure that impact is occurring?
- When should reports be generated and who should they be provided to?

The timeline can serve as an additional management tool for implementing the intervention strategy and assessing its impact, as well as serving as a mechanism for ensuring that the strategy is on track. The most important aspect of developing a quality timeline is ensuring that it is realistic given the resources that the District has available. If the timeline is too ambitious it may be too difficult to meet.

Example

A school District has determined that Literacy Program ABC is their best choice for improving reading outcomes for 3rd graders in their elementary buildings. Literacy Program ABC is a curriculum that requires teachers to go through trainings twice a year, as well as a beginning of the year training. It is research-based, and has been implemented in similar settings. The question arises: “How would you determine the action steps needed to implement the program in your District?” The steps below illustrate how one might develop action steps, along with sample descriptions of what “typical” strategies might involve.

1. **Break the strategy down into its component parts.**
    a. “Provide beginning of the year training on Literacy Program ABC for all 3rd grade teachers.”
    b. “All 3rd grade teachers in elementary buildings attend Literacy Program ABC trainings twice a year.”
    c. “Monitor implementation of curriculum during the year.”

2. Provide a description of each action step.

a. "The beginning of the year training will be held on the Monday and Tuesday before classes start. The training will be provided by personnel brought in by the District who are experts in Literacy Program ABC."

b. "The trainings will be held in November and February. They will each last one half day. The District will provide substitutes so teachers can attend. The first training will cover Topic X, the second training will cover Topic Y."

c. "Implementation will be monitored through the weekly reading quizzes that are part of the curriculum as well as monthly, 2 hour-long classroom observations by trained staff."

3. Provide a projected start/end date for each of the action steps.

The start and end dates should be logical and written as MM/DD/YY.

4. Identify the person responsible and their role.

It is preferable that the team identify the person responsible by name and role (ex.: Mae West, Reading Coordinator), but if this is unknown at the time of the submission of the improvement plan or if multiple people with the same title in different buildings are responsible, just the title can be indicated (ex: Principal of each school).

In reviewing the above examples, ask "What other steps should we include? At each step, the idea is provide a level of detail that helps to create a "road map" for the implementation of the strategy or objective. Remember that it is not only for the team, but it is also the improvement plan that you can submit to DESE to clearly show what the District is doing to improve student learning. In doing so, be realistic but optimistic as the team thinks through the options. The end result will be a "record" of efforts from the point of planning to implementation, including articulation of actions, timeline, and identifying those responsible.